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What is claimed is:

- 1. A vacuum ultraviolet radiation excited light-emitting device comprising a discharge space filled with a rare gas between a front faceplate and a rear faceplate, and a fluorescent material layer provided on the front faceplate, the fluorescent material layer having a thickness of not more than about 7  $\mu\mathrm{m}$ .
- The vacuum ultraviolet radiation excited light-emitting device according to claim 1, further comprising a fluorescent material layer on the rear faceplate.
- The vacuum ultraviolet radiation excited light-emitting device according to claim 2, which is a rare gas lamp.
- 4. The vacuum ultraviolet radiation excited light-emitting device according to claim 3, wherein the fluorescent material layer on the rear faceplate has a thickness of not less than about 30  $\mu$ m.
- The vacuum ultraviolet radiation excited light-emitting device according to claim 2, which is a plasma display panel.
- The vacuum ultraviolet radiation excited light-emitting
  device according to claim 5, wherein the fluorescent material

layer on the rear faceplate has a thickness of not more than about 20  $\mu\,\mathrm{m}.$ 

- 7. The vacuum ultraviolet radiation excited light-emitting device according to claim 1, wherein the fluorescent material
- 1 layer contains a fluorescent material having an average primary particle diameter of not more than about  $1\mu\,\mathrm{m}$ .